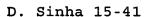We Claim:

1   1.   Apparatus for communicating a signal over a
2   plurality of communication channels, the signal including at
3   least a first component and a second component, the
4   apparatus comprising:
5   a processor for generating at least a first
6   representation and a second representation of the signal,
7   the first representation containing first information
8   concerning at least the first component, and second
9   information concerning at least one coefficient for
10   predicting the second component based on the first
11   information, the second representation containing third
12   information concerning at least the second component, and
13   fourth information concerning at least one coefficient for
14   predicting the first component based on the third
15   information; and
16   an output device for transmitting the first
17   representation and the second representation through the
18   communication channels.

1   2.   The apparatus of claim 1 wherein the signal
2   includes a stereo audio signal.

1   3.   The apparatus of claim 2 wherein the first
2   component includes a left channel signal of the stereo audio
3   signal, and the second component includes a right channel
4   signal thereof.

1   4.   The apparatus of claim 1 wherein the first
2   information concerns a combination of the first component
3   and the second component.

1   5.   The apparatus of claim 4 wherein the
2 combination of the first component and the second component
3 is adaptively determined.

1   6.   The apparatus of claim 1 wherein the third
2 information concerns a combination of the first component
3 and the second component.

1   7.   The apparatus of claim 6 wherein the
2 combination of the first component and the second component
3 is adaptively determined.

1   8.   Apparatus for recovering a signal including at
2 least a first component and a second component, the
3 apparatus comprising:
4   a receiver for receiving at least a first
5 representation and a second representation of the signal,
6 the first representation containing first information
7 concerning at least the first component, and second
8 information concerning at least one coefficient for
9 predicting the second component based on the first
10 information, the second representation containing third
11 information concerning at least the second component, and
12 fourth information concerning at least one coefficient for
13 predicting the first component based on the third
14 information; and
15   a processor for selecting use of at least one of
16 the first representation and the second representation to
17 recover the signal.

1   9.   The apparatus of claim 8 wherein the at least
2 one of the first representation and the second

3   representation is selected based on a measure of corruption
4   of the selected representation.

1   10. The apparatus of claim 9 wherein the first
2   representation and the second representation are encoded in
3   accordance with a forward error correction coding technique.

1   11. The apparatus of claim 10 wherein the measure
2   is a function of a count of detections of errors in the
3   selected representation, in accordance with the forward
4   error correction coding technique.

1   12. The apparatus of claim 9 wherein the first
2   representation and the second representation are received
3   from a plurality of communication channels, respectively,
4   the measure being a function of a signal-to-interference
5   ratio afforded by the communication channel from which the
6   selected representation is received.

1   13. The apparatus of claim 8 wherein the signal
2   includes a stereo audio signal.

1   14. The apparatus of claim 13 wherein the first
2   component includes a left channel signal of the stereo audio
3   signal, and the second component includes a right channel
4   signal thereof.

1   15. The apparatus of claim 8 wherein the first
2   information concerns a combination of the first component
3   and the second component.

1   16. The apparatus of claim 15 wherein the

2 combination of the first component and the second component
3 is adaptively determined.

1   17.   The apparatus of claim 8 wherein the third
2 information concerns a combination of the first component
3 and the second component.

1   18.   The apparatus of claim 17 wherein the
2 combination of the first component and the second component
3 is adaptively determined.

1   19. A system for communicating a signal which
2 includes at least a first component and a second component,
3 the system comprising:
4   a plurality of communication channels;
5   a transmitter for transmitting at least a first
6 representation and a second representation of the signal
7 through the communication channels, the first representation
8 containing first information concerning at least the first
9 component, and second information concerning at least one
10 coefficient for predicting the second component based on the
11 first information, the second representation containing
12 third information concerning at least the second component,
13 and fourth information concerning at least one coefficient
14 for predicting the first component based on the third
15 information; and
16   a receiver for recovering the signal based on at
17 least a selected one of the first representation and the
18 second representation.

1   20.   The system of claim 19 wherein the signal
2 includes a stereo audio signal.

1   21.   The system of claim 20 wherein the first
2   component includes a left channel signal of the stereo audio
3   signal, and the second component includes a right channel
4   signal thereof.

1   22.   The system of claim 19 wherein the
2   communication channels are simultaneously available for
3   transmitting the first representation and the second
4   representation therethrough, respectively.

1   23.   The system of claim 19 wherein the
2   communication channels include satellite links.

1   24.   The system of claim 23 wherein a third
2   representation of the signal is transmitted through a
3   selected one of the communication channels, the selected
4   channel includes a terrestrial link.

1   25.   A method for communicating a signal over a
2   plurality of communication channels, the signal including at
3   least a first component and a second component, the method
4   comprising:
5   generating at least a first representation and a
6   second representation of the signal, the first
7   representation containing first information concerning at
8   least the first component, and second information concerning
9   at least one coefficient for predicting the second component
10 based on the first information, the second representation
11 containing third information concerning at least the second
12 component, and fourth information concerning at least one
13 coefficient for predicting the first component based on the
14 third information; and

15   transmitting the first representation and the
16 second representation through the communication channels.

1   26.   The method of claim 25 wherein the signal
2   includes a stereo audio signal.

1   27.   The method of claim 26 wherein the first
2   component includes a left channel signal of the stereo audio
3   signal, and the second component includes a right channel
4   signal thereof.

1   28.   The method of claim 25 wherein the first
2   information concerns a combination of the first component
3   and the second component.

1   29.   The method of claim 28 wherein the
2   combination of the first component and the second component
3   is adaptively determined.

1   30.   The method of claim 25 wherein the third
2   information concerns a combination of the first component
3   and the second component.

1   31.   The method of claim 30 wherein the
2   combination of the first component and the second component
3   is adaptively determined.

1   32.   A method for recovering a signal including at
2   least a first component and a second component, the method
3   comprising:
4   receiving at least a first representation and a
5   second representation of the signal, the first

6 representation containing first information concerning at
7 least the first component, and second information concerning
8 at least one coefficient for predicting the second component
9 based on the first information, the second representation
10 containing third information concerning at least the second
11 component, and fourth information concerning at least one
12 coefficient for predicting the first component based on the
13 third information; and
14   selecting use of at least one of the first
15 representation and the second representation to recover the
16 signal.

1   33. The method of claim 32 wherein the at least
2 one of the first representation and the second
3 representation is selected based on a measure of corruption
4 of the selected representation.

1   34. The method of claim 33 wherein the first
2 representation and the second representation are encoded in
3 accordance with a forward error correction coding technique.

1   35. The method of claim 34 wherein the measure is
2 a function of a count of detections of errors in the
3 selected representation, in accordance with the forward
4 error correction coding technique.

1   36. The method of claim 33 wherein the first
2 representation and the second representation are received
3 from a plurality of communication channels, respectively,
4 the measure being a function of a signal-to-interference
5 ratio afforded by the communication channel from which the
6 selected representation is received.

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1   37. The method of claim 32 wherein the signal
2   includes a stereo audio signal.

1   38. The method of claim 37 wherein the first
2   component includes a left channel signal of the stereo audio
3   signal, and the second component includes a right channel
4   signal thereof.

1   39. The method of claim 32 wherein the first
2   information concerns a combination of the first component
3   and the second component.

1   40. The method of claim 39 wherein the
2   combination of the first component and the second component
3   is adaptively determined.

1   41. The method of claim 32 wherein the third
2   information concerns a combination of the first component
3   and the second component.

1   42. The method of claim 41 wherein the
2   combination of the first component and the second component
3   is adaptively determined.

1   43. A method for communicating a signal over a
2   plurality of communications channels, the signal including
3   at least a first component and a second component, the
4   method comprising:
5   transmitting at least a first representation and a
6   second representation of the signal through the
7   communication channels, the first representation containing
8   first information concerning at least the first component,

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9 and second information concerning at least a first
10 coefficient for predicting the second component based on the
11 first information, the second representation containing
12 third information concerning at least the second component,
13 and fourth information concerning at least a second
14 coefficient for predicting the first component based on the
15 third information; and
16   recovering the signal based on at least a selected
17 one of the first representation and the second
18 representation.

1   44. The method of claim 43 wherein the signal
2 includes a stereo audio signal.

1   45. The method of claim 44 wherein the first
2 component includes a left channel signal of the stereo audio
3 signal, and the second component includes a right channel
4 signal thereof.

5   46. The method of claim 43 wherein the
6 communication channels are simultaneously available for
7 transmitting the first representation and the second
8 representation therethrough, respectively.